Emissions Inventory Help Sheet for Incinerators and Crematories

What do I need to report?

Incineration and cremation are forms of combustion, and there are five to six pollutants to be reported. Use a **General Process Form** and calculate **CO**, **NO_x**, **PM_{10}**, **SO_x,** and **VOC** emissions based on the tons of material burned. See the "Instructions for Reporting 2014 Annual Air Pollution Emissions" for more information.

How do I fill out the General Process Form?

- Line 2 – "Process Type/Description" should include basic process information such as:
  "Incinerator: copper wire," "Incinerator: medical waste," "Human (or animal) crematory," etc.
- Line 4 – Use one of the following Tier Codes:
  100103 Industrial Incineration
  100104 Commercial/Institutional Incineration (includes hospital waste and crematories)
  100199 Other Incineration (specify)
- Line 11 – Enter the number of tons burned in 2014.
- Line 13 – Enter the word "tons."

How do I determine the emission factors?

An emission factor is a number used to calculate pounds of a pollutant emitted from tons of material burned. There is a separate emission factor for each pollutant. Emission factors for incineration processes are shown below.

			Emission Factors (lbs/ton burned)				
SCC Name	**SCC Description**	**SCC Code**	**CO**	**NO_x**	**PM_{10}**	**SO_x**	**VOC**
Municipal Solid Waste Disposal	Incineration: Sludge Multiple Hearth	50100515 [1]	31	5	8.2	20	1.7
Commercial/Institutional Solid Waste Disposal	Incineration: General Multiple Chamber Incinerator	50200101 [1]	10	3	4.7	2.5	3
Commercial/Institutional Solid Waste Disposal	Incineration: Special Purpose Pathological & Cremation	50200505 [2]	0.6	11	5.92	1.4	0.2
Industrial Solid Waste Disposal	Incineration: General Multiple Chamber Incinerator	50300101 [1]	10	3	4.7	2.5	3
Electrical Equipment	Electrical Windings Reclamation Single Chamber Incinerator/Oven	31307001 [3]	10	3	4.7	2.5	3
Electrical Equipment	Electrical Windings Reclamation Multiple Chamber Incinerator/Oven	31307002 [3]	10	3	4.7	2.5	3
Transportation Equipment	Brake Shoe Debonding Single Chamber Incinerator	31401001 [3]	10	3	4.7	2.5	3
Transportation Equipment	Brake Shoe Debonding Multiple Chamber Incinerator	31401002 [3]	10	3	4.7	2.5	3

References:

[1] WebFIRE Version December, 2005, a database containing EPA's recommended emission estimation factors for criteria and hazardous air pollutants, available at: http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.

[2] 11/97 test approved by Maricopa County Air Quality Department. PM-10 emission factor from AP-42 at www.epa.gov/ttn/chief/old/ap42/ch12/s10/reference/ref37_c12s10_1995.pdf

[3] Only the SO_x emission factor was given in WebFIRE Version December, 2005 (see ref. 1). The other emission factors were taken from commercial/institutional and industrial incinerators (SCC codes 50200101 and 50300101).

How do I calculate emissions?

On the General Process Form, multiply column 11 (tons burned) × each emission factor in column 16. Report the result in column 25, Estimated Actual Emissions, for each pollutant.